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ABSTRACT

Part I of this two-part document consists of a report on a study designed to measure the effects of a nonsexist classroom on the sex role attitudes of first graders. Part II is a teacher's guide to the nonsexist classroom program itself. The sex role attitudes of three groups of children--an experimental group from an open classroom, and two control groups from an open classroom and a traditional classroom respectively--were tested; the experimental group was then exposed to a seven-month intervention program. Findings show that after exposure to this program the sex role attitudes of the experimental group were significantly less stereotypic than those of either control group. No differences were found between the effects of open and traditional classrooms upon children's sex role beliefs. Findings of a follow-up study done a year later show that the intervention program had enduring effects although experimental boys had become more stereotypic than experimental girls. Following this study report, the document describes (for teachers) the intervention program, offering suggestions for eliminating sexism in three broad areas: teacher behavior, classroom environment and curriculum, and student behavior. Appended are the sex role attitudes inventory used in the study, validation ratings for the inventory, and "sexism in the classroom" awareness activities for the teacher. (CMG)

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NON-SEXIST ELEMENTARY EDUCATION:

A RESEARCH REPORT AND TEACHER'S GUIDE

P.K. Yonge Laboratory School
College of Education
University of Florida
Gainesville, Florida 32611

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NON-SEXIST ELEMENTARY EDUCATION:

A RESEARCH REPORT AND TEACHER'S GUIDE

by

Barbara Porro

Winter, 1981

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College of Education
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Gainesville, Florida 32611

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PREFACE

The central mission of the P. K. Yonge Laboratory School is to facilitate desirable change in the public schools of Florida through research and development. A central purpose of public education in Florida, and in our nation, is to remove barriers which limit people's opportunities to function productively in the mainstream of our society.

In general, schools have been concerned with such limiting conditions as deficits in communications and mathematical skills, lack of knowledge about the world in which they live, and personal qualities which might inhibit successful relationships with others. Most of the Laboratory School's research and development has sought to improve the ways we teach skills, impart knowledge, and help children acquire desirable personal qualities.

Even as they seek to remove barriers which limit children's opportunities, schools sometimes contribute to the perpetuation of conditions which limit the opportunities of segments of our society. One such case is the reinforcement of stereotypes related to sex. Numerous studies have shown that, through curriculum content and through differences in the ways males and females are treated, schools reinforce limiting perceptions of sex differences.

This monograph reports the results of one teacher's efforts to reduce sex stereotyping in the educational program of her first grade class. It shows positive results. I hope that from its contents you will gain ideas, encouragement, and inspiration for similar efforts in your classroom.

J. B. Hodges, Director
and Professor of Education*

*Retired June 1981.

CONTENTS

	Page
ACKNOWLEDGMENTS	ii
PREFACE	iii
LIST OF TABLES	vi
INTRODUCTION	vii
REVIEW OF THE LITERATURE, RATIONALE AND OBJECTIVES	viii
PART I: THE STUDY	1
Method	1
Subjects and Setting	1
Intervention Program	1
Instrumentation	3
Procedure	5
Results	6
Discussion	13
PART II: TEACHER'S GUIDE	19
Begin With Yourself, the Teacher	19
Develop Awareness	19
Model New Behaviors	20
Speak a Non-Sexist Language	22
Treat Students as Individuals	23
Group Girls and Boys Together	26
Treat the Classroom Environment and Curriculum	28
Physical Environment	28
Academic Curriculum	30
Treat the Students	39
Summary	47

Page

APPENDIX A: VALIDATION RATINGS OF THE SEX-ROLE ATTITUDE INVENTORY 49

APPENDIX B: SEX-ROLE ATTITUDE INVENTORY 51

APPENDIX C: SEXISM IN THE CLASSROOM: AWARENESS ACTIVITIES 56

REFERENCES 60

BIBLIOGRAPHY 63

Becoming More Aware of Your Sex-Bias 63
Resources for Teachers 64

LIST OF TABLES

Page

TABLE 1. Distribution of Students in the Three First Grade Classrooms According to the Demographic Variables of Sex, Race, and Family Income 2

TABLE 2. Pretest and Posttest SRAI Mean Scores by Treatment, Sex, and Race 7

TABLE 3. Analysis of Covariance Results for Posttest SRAI Scores 8

TABLE 4. Post Hoc Results Using Scheffé's Method for the Main Effect of Treatment 10

TABLE 5. Posttest and Follow-Up SRAI Mean Scores by Treatment and Sex 11

TABLE 6. Analysis of Covariance Results for Follow-Up SRAI Scores with the Pretest as the Covariate ... 12

TABLE 7. Analysis of Covariance Results for Follow-Up SRAI Scores with the Posttest as the Covariate ... 14

APPENDIX TABLE A-1. Validation of the Sex-Role Attitude Inventory: Frequency of Ratings and Mean Ratings for Each Item (N = 9) 49

APPENDIX TABLE A-2. Validation of Two New Items for the Sex-Role Attitude Inventory: Frequency of Ratings and Mean Ratings for Each Item (N = 8) 50

INTRODUCTION

A stereotype has been defined as "an exaggerated belief associated with a category" (Allport, 1954, p. 191). Blacks are lazy; Jews are stingy; boys are rowdy; girls are sweet. These stereotypic beliefs distort our perceptions of an individual's character and capabilities and often lead to unfair treatment. Racist attitudes in our culture are perhaps the most blatant example of how stereotypic beliefs can result in discriminatory practices.

Recently we have begun to realize that stereotypes based upon sex have also resulted in unequal opportunities for women and men. With the passage of Title IX (Education Amendments of 1972) prohibiting sex discrimination in the schools, educators are beginning to develop programs to assist children in overcoming the limitations of sex-role conditioning and to increase their role options. These programs, often called "non-sexist education," expose children to skills and activities traditionally associated with the opposite sex. For example, girls are encouraged to participate in athletics and boys are taught the value of expressing their emotions freely. As children explore a wider range of roles, skills, and interests, they are more likely to develop according to their unique characteristics, rather than be restricted along "sex-appropriate" lines.

During the school years 1979-81, a non-sexist elementary education project was implemented at P. K. Yonge Laboratory School, University of Florida, to increase our knowledge of how teachers can operate classrooms free of sex bias. This monograph presents a comprehensive report of that project. PART I describes a study that measured the effects of a non-sexist classroom on the sex-role attitudes of first graders; PART II provides classroom teachers with a description of the non-sexist educational program developed for the project.

REVIEW OF THE LITERATURE, RATIONALE, AND OBJECTIVES

Although the negative consequences of sex-role socialization in the schools have been well documented in research (Dweck, Davidson, Nelson & Enna, 1978; Fagot & Patterson, 1969; Serbin, O'Leary, Kent & Tonick, 1973), only three studies previously have investigated the effect of non-sexist programs upon children's sex-role learning. Guttentag and Bray (1976) implemented a six-week non-sexist curriculum at the kindergarten, fifth grade, and ninth grade levels. By the end of the intervention, students at each level had become less stereotypic in their sex-role beliefs. Because the grades they chose for their study represented a wide range of age-related differences, Guttentag and Bray suggest that a well developed program can influence sex-role learning at any age.

Additionally, Guttentag and Bray (1976) found consistent evidence that boys were more likely than girls to maintain and enforce sex-role stereotypes. They hypothesized that, "Since sex-role status has in the past been defined by typically masculine values, an expansion of sex roles (i.e., women in jobs, more men at home) may, to the males, appear to lead to a loss of status and power for them" (p. 301).

Flerx, Fidler, and Rogers (1976) examined the effects of a short-term intervention upon preschool children, using a pretest-posttest design. Twenty-eight children were told either traditional or egalitarian stories for a period of one week. Following the intervention, the fourteen children in the egalitarian program exhibited fewer stereotypes than those in the traditional program.

Flerx et al. then examined the effect of egalitarian films. In their second experiment, forty-six children were assigned to three treatment conditions: traditional books, egalitarian books, and egalitarian films. Awareness of sex stereotypes was assessed before, immediately after, and one week following the treatment. Immediately after the intervention, children exposed to egalitarian films and stories displayed significantly less stereotyping than children in the traditional group. One week later, however, Flerx et al. found "some evidence that films had more enduring impact than picture books." In considering the influence of the egalitarian intervention, it is important to remember that the treatment time was only seventeen minutes a day for a period of a week. Yet, consistent with the findings of Guttentag and Bray (1976), children in the Flerx et al. study became

less stereotypic in their sex-role beliefs after exposure to a non-sexist intervention, and boys were not as strongly affected by the intervention as girls.

In a study examining the impact of a long-term exposure to non-sexist curricula, Koblinsky and Sugawara (1979) divided forty-eight children, aged three through five, equally among three interventions: a non-sexist program directed by a male; a non-sexist program directed by a female; and a control program directed by a female. Sex-role discrimination and preference were assessed at the beginning and end of a six-month intervention period. Results from the study indicate that children exposed to the non-sexist program displayed less stereotypic thinking than children in the control group. There was no significant difference between the male- and female-directed non-sexist programs.

Results from the Koblinsky and Sugawara (1979) study support the findings of the two previous studies with one notable exception. While Guttentag and Bray (1976) and Flerx et al. (1976) found that boys were not as strongly affected by the intervention as girls, the intervention program of Koblinsky and Sugawara (1979) affected males and females equally. Koblinsky and Sugawara suggest that this discrepancy may be due in part to the variations in age of the subjects and the length and scope of the program. Because their subjects were considerably younger than the kindergarteners used in Guttentag and Bray's (1976) study, Koblinsky and Sugawara hypothesize that younger children's beliefs may be easier to modify. Koblinsky and Sugawara further suggest that their six-month intervention, providing lengthy exposure to non-sexist attitudes, may have overcome any early differences in boys' and girls' responses to the intervention.

Of the three studies reviewed, only Flerx et al. (1976) examined the "sustained" impact of their treatment program. Flerx et al. were not surprised that the attitude change produced by their week-long treatment diminished slightly one week later, because immediately after the experiment the children were again exposed to nonegalitarian media. They hypothesized that a long-term program would sustain changes obtained in their short-term intervention. Since neither of the other studies (Guttentag & Bray, 1976; Koblinsky & Sugawara, 1979) collected follow-up data, it has not been possible to determine whether the changes produced by an intervention program have any long-term effects. If changes resulting from non-sexist programs do not endure, what is the value of exposing children to even a six-month intervention?

The present study was designed with the latter question in mind; i.e., to assess the enduring impact of a non-sexist program one year after the program's completion. After we pretested children's sex-role attitudes, the Experimental group of first graders was exposed to a seven-month intervention program. The children's attitudes were post-assessed immediately following the intervention period and again one year later. Results from the follow-up test determined the value of exposing children to non-sexist educational programs even when their subsequent schooling does not continue similar programs.

The two comparison groups selected for this study made it possible to examine the effects of an open versus traditional classroom on children's sex-role attitudes. Advocates of open education often claim that stereotyping is reduced in open classrooms because emphasis is placed on each student's growth as an individual. Traditional classrooms, on the other hand, are said to stress adherence to established standards and, therefore, would be expected to maintain the stereotypes of the culture. An open classroom and a traditional classroom were used as the control groups in this study. Since neither group was deliberately presented with a non-sexist program, by the end of the study it was possible to examine the effects of these two differing philosophies on children's attitudes regarding sex roles. The results of the study are presented in PART I.

A major focus of this project was the development of a comprehensive guide to help teachers create non-sexist educational programs. Guttentag and Bray (1976) provide non-sexist curricular activities, background materials, resource agencies, and bibliographies. Koblinsky and Sugawara (1979) modeled their non-sexist curriculum after a program developed by Women's Action Alliance and presented in Non-Sexist Education for the Young Child (Sprung, 1975). This practical guide includes suggestions on how to create non-sexist environments and gives detailed descriptions of five units of study and a comprehensive list of non-sexist materials, books, and readings.

Many of the suggestions in these and other resources focus upon modifications in the classroom environment and in the curriculum. However, several sources (Guttentag & Bray, 1976; Sadker, Serbin, Greenberg, Ulrey & McNett, 1977) identify the teacher as the key variable. Sadker et al. (1977) note that, while non-sexist curriculum and instructional materials are essential,

> The teacher's behavior is probably the most critical factor in determining whether what happens in a classroom will encourage the development of flexibility and proper sex attitudes or the retention of old stereotyping practices. (p. 8)

If the teacher's behavior is indeed critical, too little has been said about specific teacher techniques and strategies for eliminating sex bias from the classroom.

In view of this need, the program developed for the present study focused upon identifying teacher behaviors that promote the development of non-stereotypic attitudes in children. A teacher's guide to this non-sexist program is presented in PART II.

PART I: THE STUDY

Method

Subjects and Setting

The participants were seventy-eight first grade children, ages six and seven, in three self-contained classrooms. The Experimental Group (n = 28) and one Control Group (n = 27) were located at P. K. Yonge Laboratory School, which randomly assigns and stratifies students according to the variables of sex, race, and family income. The stratification is based on a model mandated by the governing board of the State University System. The model is designed to insure that findings may be generalized to other schools in the State. The second Control Group (n = 23) was located in a public school where the student population is similar to that of P. K. Yonge. Table 1 shows the demographic variables of sex, race, and family income for all three classrooms.

The Experimental Group in which the non-sexist program was implemented was also an open classroom. Control Group One was an open classroom; Control Group Two a traditional classroom. Neither control classroom's program deliberately emphasized the elimination of sex bias.

The follow-up study was conducted with students in the Experimental Group and Control Group One who were still in attendance at P. K. Yonge. Attrition reduced the size of the Experimental Group by four (n = 24) and Control Group One by seven (n = 20). These forty-four students were randomly assigned to two second grade classrooms. Both classrooms had an open educational philosophy with no deliberate effort to remove sex-role stereotyping.

Intervention Program

The program focused upon eliminating sexism in three broad areas: the teacher's behavior, the classroom environment and curriculum, and the students' behavior. In each of these areas the teacher confronted the sexism that was already present and made modifications in support of a non-sexist perspective. For example, the teacher

TABLE 1

Distribution of Students in the Three First Grade Classrooms According to the Demographic Variables of Sex, Race, and Family Income

Demographic Variable	Experimental Group		Control Group One (Open)		Control Group Two* (Traditional)	
	n	%	n	%	n	%
Sex:						
Female	14	50.0	12	44.5	8	34.8
Male	14	50.0	15	55.5	15	65.2
Race:						
Black	5	17.9	6	22.2	7	30.4
White	23	82.1	21	77.8	16	69.6
Income:						
Less than $9,500	5	17.8	7	25.9	3	23.0
$9,500 - $14,999	6	21.4	4	14.8	3	23.0
$15,000 - $19,499	6	21.4	5	18.5	0	00.0
$19,500 - $25,499	6	21.4	5	18.5	3	23.0
Greater than $25,500	5	17.8	6	22.2	4	30.1

*Income information for Control Group Two was available on thirteen of the twenty-three students.

modified her own behavior by using non-sexist terminology and by organizing the classroom in ways that encouraged cross-sex affiliation. All seating arrangements, lining up procedures, small-group instruction, and games involving teams were sexually integrated. The classroom environment was modified by combining block and housekeeping areas to give boys and girls an opportunity to play together using a wider variety of toys. The curriculum was expanded to include special units of study--famous women and men in science, for instance.

Next, the teacher focused on the sexist attitudes and behaviors of the children themselves. After identifying specific ways in which the children were limited by their sex-role beliefs, the teacher discussed each problem with the children to discover the reasoning behind their behavior. New classroom values that supported non-sexist behaviors were established. Finally, the children participated in activities that provided them with an opportunity to experience new, non-sexist ways of behaving. For example, when boys and girls repeatedly chose same-sex playmates, the teacher discussed this behavior with the children and introduced the idea that girls and boys can be friends. The children then were invited to play a game specifically designed to develop cross-sex friendships.

The teacher acknowledged and supported change in the children's attitudes and provided repeated opportunities for them to experience each non-sexist behavior. When sex-role stereotypes appeared in the everyday environment, they were confronted in discussion. If a book about medicine illustrated only men in doctor roles and women in nurse roles, the teacher helped the children decide how the pictures might be changed to reflect a non-sexist view of career opportunities in the medical profession.

The teacher recorded the strategies used to foster attitudinal change in the students and kept an anecdotal log of the children's behavior before and after each intervention activity. A more definitive discussion of the non-sexist program developed for this study is the subject of PART II in this monograph.

Instrumentation

The Sex-Role Attitude Inventory: An Instrument to Measure Sex-Role Attitudes in Elementary Aged Children (SRAI: Porro, 1981) was developed to assess which gender(s) a child associates with certain roles, activities, and characteristics. The method used to measure children's attitudes is modeled after the doll-choice technique used by Flerx et al. (1976) to investigate sex-role stereotypes. The sixteen

items on Part 1 assess sex-role attitudes toward peers. For each item the subject is asked to identify the sex (sexes) of the person(s) described by pointing to one of three pictures in the answer picture booklet: (1) a boy, (2) a girl, and (3) both a boy and a girl.* Subjects are asked to point to the picture that shows, for example, who helps set the table? Who likes to climb trees? Who is strong?

In a similar manner, the thirteen items on Part 2 measure sex-role attitudes toward adults. Subjects are asked to point to the picture that shows, for example, who has muscles? Who changes a baby's diaper? Who builds and fixes things? In this part, subjects choose their answers from three adult pictures: (1) a woman, (2) a man, and (3) both a woman and a man.

Scores on the SRAI are determined by counting the total number of non-stereotypic responses; i.e., picture of both the male and female together. Scores range from 0-23. The six control items on the instrument are not counted in scoring.

The content validity of the SRAI was determined by nine researchers in the area of sex-role stereotyping. Using a five-point Likert scale, each judge independently rated the items in the inventory on the extent to which they represent a male or female stereotype for children six through eleven years old. Twenty-four of the twenty-six items were determined to be valid based on the criterion that at least seventy-five percent (75%) of the judges (seven out of nine) gave these items a rating of "3" (somewhat stereotypic) to "5" (highly stereotypic). The frequency of the ratings and the mean ratings for each item are presented in Appendix A. The two items that failed to meet the criterion were deleted from the analysis of the data in both the posttest and the follow-up test of this study.

Test-retest reliability was determined by readministering the instrument to Control Group One two weeks after the pretest was given. The reliability for Part 1 was $r = .73$ ($n = 24$) and for Part 2, $r = .68$ ($n = 24$); these reliability coefficients are acceptable given the small number of items on the test. The internal consistency of the instrument was measured by Cronback's Coefficient Alpha; reliability coefficients of .75 for the pretest and .91 for the posttest were obtained. These coefficients indicate that the instrument did have high internal consistency.

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*The Answer Picture Booklet contains one page per item. On each page the three pictures are presented in random order. There are two editions of the Answer Picture Booklet: white subjects are shown white faces; black subjects are shown black faces.

To replace the two weak items that had failed to meet the content validity criterion, two new items were assessed using the same validation procedure; i.e., researchers in the field of sex-role stereotyping indicated the extent to which the items represent the stereotype for the six- through eleven-year-old. The eight judges who participated in the revision had assisted in the original validity check. Both items were determined to be valid against the criterion that at least seventy-five percent (75%) of the judges (six out of eight) rated the items from "somewhat stereotypic" to "highly stereotypic." The frequency of ratings and the mean ratings for both items are presented in Appendix A.

To further validate the new items, they were added to the SRAI during follow-up testing. (The new items were not included in the analysis of the data.) The correlation between the instrument without the two new items and the instrument with the two new items was 0.99. These two new items have been added to the SRAI to maintain the balance of male and female items. (See Appendix B.)

Procedure

Seventy-eight students in the three first grade classrooms were tested at the beginning and end of the seven-month intervention period. Data were collected using the Sex-Role Attitude Inventory. The investigator trained several male and female university students to administer the SRAI. Administration time was approximately ten minutes per child.

In the follow-up study, students in the Experimental Group and Control Group One (open classroom) were readministered the SRAI at the conclusion of the second grade. Control Group Two (traditional classroom) unfortunately could not be included in the follow-up study because of time and resource constraints. The procedures used to administer the pretest and the posttest were also used to administer the follow-up test.

Results

Table 2 presents the pretest and posttest SRAI mean scores, broken down by treatment, sex, and race. When we inspect the pretest results for Part 1, we see first of all that differences among the three treatment groups are negligible. Initially, however, females have higher average scores than males (4.70 versus 3.72), and whites are less stereotypic than blacks (4.66 versus 2.44). Much the same holds for Part 2: Girls score higher than boys on this index, and whites have higher averages than blacks, but variations among treatment groups are minimal.

The posttest results, shown in the same table, tell a dramatically different story. Although all categories show an upward shift in scores, by far the greatest increase is experienced by the Experimental Group, whose average rose from 4.21 to 10.25 on Part 1 (an increase of 6.04) and from 3.39 to 7.57 on Part 2 (an increase of 4.18). In contrast, the average score of Control Group One rose by only 1.56 on Part 1 and by 1.03 on Part 2. A yet more modest rise was experienced by Control Group Two (up 1.35 on Part 1 and .13 on Part 2).

A comparison of the treatment groups with the sex and race categories shows that, on the posttest, the treatment groups differ much more than boys differ from girls or blacks from whites. It is nonetheless worth noting that girls still have higher average scores than boys, despite the fact that boys' scores on Part 1 rose slightly more than the girls' between the pretest and posttest. Moreover, not only do whites continue to have higher scores than blacks, but the differences between the racial groups widened between the two tests.

The data that we have just reviewed leave little doubt that the non-sexist treatment had an appreciable effect on the attitudes of the children who were exposed to it. Yet, it is desirable to carry the analysis a step further--that is, to explore the joint, and possibly interactive, effects that might occur among the variables and to test for statistical significance. For this purpose, univariate and multivariate analyses of covariance were conducted to assess changes between the pretest and posttest. The results, displayed in Table 3, confirm our previous impression that the treatment variable is the decisive explanatory factor (here significant at the .001 level). Once we have taken account of initial differences by sex and race, neither

TABLE 2

Pretest and Posttest SRAI Mean Scores
by Treatment, Sex, and Race

Variable	n	Part 1		Part 2	
		Pretest	Posttest	Pretest	Posttest
Treatment					
E	28	4.21	10.25	3.39	7.57
C1	27	4.25	5.81	3.48	4.51
C2	23	3.95	5.30	3.21	3.34
Sex					
Female	34	4.70	7.64	3.85	5.94
Male	44	3.72	6.95	3.00	4.75
Race					
Black	18	2.44	4.94	2.44	3.77
White	60	4.66	7.95	3.65	5.71

TABLE 3

Analysis of Covariance Results
for Posttest SRAI Scores

Source of Variance	Multivariate Analysis		Univariate Analysis[b]		
	df	Approximate F[a]	df	MS	F
Treatment (T)	4, 124	17.62**	2	343.62	23.88**
			2	170.78	26.01**
Sex (S)	2, 63	0.92	1	5.12	0.71
			1	0.05	0.02
Race (R)	2, 63	1.34	1	14.67	2.04
			1	8.63	2.63
T x S	4, 124	1.08	2	16.97	1.18
			2	0.40	0.06
T x R	4, 124	2.18	2	39.70	2.76
			2	4.76	0.73
S x R	2, 63	1.43	1	3.06	0.43
			1	5.80	1.77
T x S x R	4, 124	1.73	2	28.08	1.95
			2	0.90	0.14
Covariate					
Part 1 (Pretest)	2, 63	2.60	1	101.94	14.17*
Part 2 (Pretest)	2, 63	10.82**	1	83.03	25.29**
Error					
Part 1	64		65	7.19	
Part 2			65	3.28	

**$p < .001$

*$p < .05$

[a]Hotelling-Lawley Trace criterion used to approximate F.

[b]Part 1 and Part 2 subscore analyses, respectively, on upper and lower lines.

of these variables makes a significant contribution to the explanation of variance. Nor are there any significant two- or three-way interactions among the variables.

Applying the statistical method devised by Scheffé to pinpoint differences among the treatment groups, we find that, on both Part 1 and Part 2, the difference between the Experimental Group and each of the Control Groups is significant at the .001 level (see Table 4). That is to say, there is less than one chance in a thousand that these differences are the result of chance alone. Note also that, although there is no statistically significant difference between the Control Groups on Part 1, they do differ significantly ($p < .01$) on the Part 2 posttest score.

As noted earlier, a primary objective of this study was to ascertain whether differences induced by a non-sexist treatment would endure after a year had elapsed. The results of the follow-up study shed light on this point (see Table 5). Looking first at the scores of the children who were in the Experimental Group, we see that the scores on Part 1 declined from 10.00 on the posttest to 8.50 on the follow-up while the scores on Part 2 were constant (7.38 and 7.33, respectively). Notwithstanding the fact that a year had elapsed, the Experimental Group's children had appreciably higher averages than did the Control Group both on Part 1 (8.50 versus 5.40) and Part 2 (7.33 versus 4.75).

There is another finding in Table 5 that we should not overlook--the differences between boys and girls in their attitudes toward peers (Part 1 of the inventory). The averages by sex at the bottom of the table show that girls' scores were unchanged, whereas the boys' average dropped by 1.40. An inspection of the figures above reveals that this shift occurred specifically in the Experimental Group, not the Control Group. The boys, who started off with a higher score than the girls (10.50 versus 9.50), fell to 7.92 on the follow-up, whereas the girls held constant (9.25). These results suggest that the boys, who achieved higher relative gains during the course of the treatment, were also more likely than the girls to lose those gains after the treatment was terminated. This observation pertains only to attitudes toward peers. As the follow-up results for Part 2 show, both boys and girls maintained much the same level with regard to their attitudes toward adults.

To explore further these interrelationships, two additional analyses of covariance were conducted. Shown in Table 6 are the results of multi- and univariate analyses using the pretest as the covariate. These results once again confirm that the differences

TABLE 4

Post Hoc Results Using Scheffé's Method
for the Main Effect of Treatment

SRAI Score	Treatment Groups	df	F
Part 1	E vs C1	2,65	37.59**
	E vs C2	2,65	42.93**
	C1 vs C2	2,65	0.44
Part 2	E vs C1	2,65	39.02**
	E vs C2	2,65	68.63**
	C1 vs C2	2,65	5.18*

**p < .001
*p < .01

TABLE 5

Posttest and Follow-Up SRAI Mean Scores
by Treatment and Sex

Treatment Group	Sex	Part 1 Attitude toward Peers		Part 2 Attitude toward Adults	
		Posttest	Follow-Up	Posttest	Follow-Up
Experimental	Male	10.50	7.92	7.00	7.33
	Female	9.50	9.25	7.75	7.33
	All	10.00	8.50	7.38	7.33
Control	Male	4.36	4.27	3.73	3.90
	Female	6.56	6.78	4.78	5.78
	All	5.35	5.40	4.20	4.75
All	Male	7.57	6.17	5.43	5.70
	Female	8.24	8.19	6.48	6.67

TABLE 6

Analysis of Covariance Results for Follow-Up SRAI Scores with the Pretest as the Covariate

Source of Variance	Multivariate Analysis		Univariate Analysis[b]		
	df	Approximate F[a]	df	MS	F
Treatment (T)	2, 33	15.42**	1	106.86	21.72**
			1	77.39	28.09**
Sex (S)	2, 33	2.19	1	18.30	3.72
			1	1.24	0.45
Race (R)	2, 33	1.09	1	17.16	3.49
			1	2.53	0.92
T x S	2, 33	0.90	1	0.03	0.01
			1	3.97	1.44
T x R	2, 33	2.30	1	13.64	2.77
			1	11.76	4.27
S x R	2, 33	1.06	1	0.41	0.09
			1	2.28	0.83
T x S x R	2, 33	0.09	1	0.38	0.08
			1	0.28	0.10
Covariate					
Part 1 (Pretest)	2, 33	2.00	1	27.11	5.51*
Part 2 (Pretest)	2, 33	3.81*	1	24.85	9.02*
Error					
Part 1	34		35	172.72	
Part 2			35	96.43	

**p < .001

*p < .05

[a]Hotelling-Lawley Trace criterion used to approximate F.

[b]Part 1 and Part 2 subscore analyses, respectively, on upper and lower lines.

among individuals in the follow-up test are the result of the treatment ($p < .001$) rather than sex or racial differences or random error. On the other hand, when the posttest is used as the covariate (see Table 7), differences associated with treatment vanish, and differences between the sexes assume statistical significance ($p < .05$). This certainly does not mean that the children from the Experimental and Control Groups do not differ a year later (that was demonstrated in Tables 5 and 6). Rather, it indicates that once we have taken account of the children's scores on the posttest, the important variable explaining changes occurring between the posttest and the follow-up is sex--a clear indication of our earlier observation that boys in the Experimental Group moved toward somewhat more stereotypical views toward their peers. Despite this downward shift, using Duncan's multiple-range test, we still find a statistically significant difference ($p < .05$) between the mean scores of the boys from the Experimental Group and the averages of the males from the Control Group. In other words, one year after the treatment, the boys remained significantly less stereotypic in their responses toward peers than did the boys who had not been exposed to the non-sexist program.

Discussion

Results from this study support the findings of previous studies (Guttentag & Bray, 1976; Flerx et al., 1976; Koblinsky & Sugawara, 1979) that non-sexist programs have a definite impact upon children's sex-role learning. After exposure to the intervention program, the sex-role attitudes of the first graders in the Experimental Group were significantly less stereotypic than those of either Control Group.

Results from this study also indicate that the intervention program was as effective for boys as for girls. Whereas two earlier studies (Guttentag & Bray, 1976; Flerx et al., 1976) found that boys were not as affected by the intervention as girls, this study is consistent with Koblinsky and Sugawara (1979) who found no differences in boys' and girls' responses to their intervention. Koblinsky and Sugawara account for this discrepancy by hypothesizing that long-term exposure to the non-sexist activities may have overcome early differences in boys' and girls' responses to the curriculum. Since both the present study and the study of Koblinsky and Sugawara were several months in duration and both programs modified boys' attitudes as effectively as girls', this hypothesis may be valid.

TABLE 7

Analysis of Covariance Results for Follow-Up SRAI Scores with the Posttest as the Covariate

Source of Variance	Multivariate Analysis		Univariate Analysis[b]		
	df	Approximate F[a]	df	MS	F
Treatment (T)	2, 33	1.45	1	11.30	2.55
			1	8.04	3.88
Sex (S)	2, 33	3.51*	1	33.87	7.64
			1	0.91	0.44
Race (R)	2, 33	1.86	1	20.[illegible]	4.64
			1	2.19	1.06
T x S	2, 33	0.98	1	1.38	0.31
			1	3.42	1.66
T x R	2, 33	0.97	1	3.51	0.79
			1	6.79	3.28
S x R	2, 33	0.78	1	4.46	1.01
			1	0.06	0.03
T x S x R	2, 33	0.26	1	2.28	0.52
			1	0.60	0.29
Covariate					
Part 1	2, 33	1.34	1	44.07	9.94
Part 2	2, 33	3.88*	1	48.79	23.56
Error					
Part 1	34		35	155.27	
Part 2			35	72.49	

*$p < .05$

[a]Hotelling-Lawley Trace criterion used to approximate F.

[b]Part 1 and Part 2 subscore analyses, respectively, on upper and lower lines.

Koblinsky and Sugawara (1979) further suggest that the attitudes of the young children in their study may have been easier to modify than those of the older kindergarteners in the Guttentag and Bray (1976) study. Since the present study successfully modified the attitudes of first graders (six- and seven-year-old children) in period similar to the study of Koblinsky and Sugawara, it appears that the age of the subjects is not critical. Guttentag and Bray (1976) would agree since their study concluded that an intervention program can be successfully geared to any age.

Of additional interest was the apparent lack of any difference in the effects of open versus traditional philosophies upon children's sex-role beliefs. Posttest scores revealed that children in both Control Groups (the open classroom and the traditional classroom) were significantly more stereotypic when compared with the Experimental Group.

However, upon closer examination of the Control Groups' posttest scores, it was found that children in the open classroom had become less stereotypic in their attitudes towards adults (Part 2 of SRAI) than children in the traditional classroom. With such a small sample size, it is difficult to ascertain if the difference between the open and traditional groups resulted from the differing philosophies of the classrooms or from other variables in the classroom environments. For example, an item-by-item examination of the Part 2 inventory revealed that in the open classroom the greatest change between pre- and posttesting occurred on Item #6: "Who can be a dentist?" Upon further investigation, it was discovered that, during a dental education unit, a female dental hygienist (a friend of the student teacher in that classroom) had spoken to the children. This single event--a first-hand experience with a female dental hygienist--seems to have altered some of the children's beliefs as measured in Item #6. Before any generalizations can be made about the comparative impact of open versus traditional education upon children's sex-role beliefs, additional research is necessary.

Results from the follow-up test, however, do suggest that open classrooms do not affect children's attitudes regarding sex roles. Since children in the Experimental Group and Control Group were placed in open classrooms in the second grade, and since the attitudes of both groups remained fairly constant throughout that year, it can be said that the open classrooms had little impact upon the students' previous sex-role attitudes. These findings seem to indicate that individualized treatment of students in open classrooms does not necessarily reduce stereotypic thinking. It might be that, while

children in open classrooms have increased opportunities to express their individuality, their personality traits already reflect the sexist attitudes of the larger culture. Children apparently continue to act out sex-typed preferences unless they are made conscious of a wider range of possibilities. To make them aware requires deliberate planning.

Results from the follow-up test in this study indicate that the non-sexist program presented to the Experimental Group of first graders had enduring effects. At the end of the second grade, students who had received the long-term intervention were still significantly less stereotypic in their sex-role attitudes than children from the Control Group. The Experimental students had maintained their beliefs one year after the program's completion. This suggests that, even when it is not possible to expose children to non-sexist programs in their subsequent schooling, participation in an intensive non-sexist program has enduring effects.

When the follow-up test results were examined by sex, it was found that boys became significantly more stereotypic in their attitudes toward peers than did girls. Although there was not a significant treatment-by-sex interaction, an examination of the posttest and follow-up test mean scores seems to indicate that most of the change is accounted for by a decrease in the scores of the Experimental males. (The Experimental males had a mean posttest score of 10.50 and a mean follow-up test score of 7.92. At the same time the Control males registered very little change in their mean scores: Posttest = 4.36 and follow-up test = 4.27.)

The fact that the Experimental boys regressed in their attitudes toward peers is of particular interest in light of the previous studies. Males in the studies of both Guttentag and Bray (1976) and Flerx et al. (1976) were not as affected by the intervention program as girls. Boys, it seems, are more reluctant than girls to discard stereotypic beliefs, or, in the case of the present study, to maintain non-stereotypic beliefs.

This may be related to the fact that males are taught stereotyped behaviors earlier and more harshly than females (Hartley, 1959). Parents, for example, react much more strongly toward sex-inappropriate behavior in their sons than in their daughters. As Brooks-Gunn and Matthews (1979) point out, "When girls choose boyish activities or act like 'tomboys,' parents, especially fathers, aren't too concerned. When boys choose girlish activities or act like 'sissies,' all hell breaks loose" (p. 152).

In addition to this, the social consequences of boys' behaving in sex-inappropriate ways are more negative than they are for girls'. Peers exert strong pressure upon boys to conform to the masculine sex role. Fagot and Patterson (1969) describe what happened to a boy they observed whose behavioral choices were predominately "feminine": The young boy's peer group not only gave him negative reinforcement for his behavior but played with him less than with any other child.

It appears that modifying boys' sex-role attitudes toward peers is a more difficult and complex task than altering these attitudes in girls. This may mean that in order for the teacher to modify boys' attitudes toward peers effectively, peer group support is necessary. The fact that the intervention in this study concentrated upon children's behavior may have been critical to its success, especially for boys. As the teacher directly confronted children about their stereotypic beliefs and reinforced their non-sexist behavior, she may have gained the support of peers, who in turn helped foster the change in each other. Peer-group dynamics in the second grade, however, may have been different. The Experimental boys probably did not receive support for non-sexist behavior from their new teacher or from the new boys in their peer group (Control males); consequently, they apparently regressed to a more stereotypic perception.

Even though the Experimental males may have had little environmental support for maintaining their non-sexist attitudes in the second grade, it is important to note that they still remained significantly less stereotypic than boys who had been in the Control Group. The fact that all children receiving the non-sexist program remained significantly less stereotypic when compared with children who were not exposed to the program demonstrates the effectiveness of this program.

The non-sexist program presented to the Experimental Group identifies the teacher as the critical variable. One of the teacher's primary goals is to diagnose and treat sexist behavior problems among the students. The teacher begins by observing the students and identifying ways in which they are limited by their sex-role beliefs. The problem areas identified determine the content of the intervention program. For example, when girls (and some boys) seemed reluctant to participate in outdoor play, the teacher developed a specific strategy for helping children recognize and appreciate the value of physical exercise: A female athlete was invited to the classroom to teach the children how to play soccer.

The success of this treatment program seems largely dependent upon the teacher's skill in perceiving sexist behavior in the student group and then actively confronting it. This requires that the teacher not only have a well developed understanding of sexism, but also a high level of commitment to bringing about the desired change. Guttentag and Bray (1976) also found that the level of involvement on the part of the teacher is related to the effectiveness of the intervention: "Our data clearly indicate that the most powerful predictors of attitudinal change in students were the enthusiasm and convictions of the individual teacher" (p. 302).

Future studies should be developed to compare the effectiveness of different intervention programs in changing children's sex-role beliefs. It would also be desirable for researchers to select or develop an instrument for measuring children's sex-role attitudes that could be used across studies. Because each of the three studies reviewed in this paper (Flerx et al., 1976; Guttentag & Bray, 1976; Koblinsky & Sugawara, 1979) and the present study used a different instrument to assess sex-role stereotypes, direct comparisons between studies are not possible.

PART II: TEACHER'S GUIDE

Many teachers recognize the damaging effects of sex-role stereotyping but are at a loss when it comes to eliminating sexism effectively from their classrooms. The seven-month program developed in this study focused upon identifying teacher techniques and strategies for creating a non-sexist educational program. The guide presented in the following pages provides classroom teachers with a complete description of that program.

The program focuses upon eliminating sexism in three broad areas: the teacher's behavior, the classroom environment and curriculum, and the students' behaviors. In each of these areas, suggestions are offered to help teachers recognize and confront the sexism that is already present and create a new understanding of the roles, skills, and behaviors available to students in achieving potential.

Begin With Yourself, the Teacher

A good place to begin searching for sexist attitudes and behaviors is where teachers have the greatest influence--within themselves. This section will assist teachers in eliminating their own stereotypic behavior and in adopting a new, non-sexist perspective. Once teachers confront sexism within themselves and discover the subtle ways it affects their behavior, they will better understand and be prepared to treat the sexism hidden in other parts of the classroom.

Develop Awareness

Sexism is bias, prejudice, or discrimination based on gender. Just as a racist has preconceptions about people based on the color of their skin, a sexist has preconceptions about people based on their sex. There are certain personality traits, for example, that are thought to differentiate the sexes in our culture. Characteristics often associated with the masculine sex role are competence, self-reliance, and assertiveness; those associated with the feminine sex role are sensitivity, gentleness, and nurturance. Yet, when researchers have tried to determine behavioral sex differences, they

are unable to prove that any behavioral traits are the inherent consequence of sex, although there are some trends and patterns (Pogrebin, 1980). Human behavior, it seems, is far too complex to divide neatly by sex.

Because sexism, like racism, is so pervasive in our culture, it takes a conscious effort to discover how our attitudes, perceptions, expectations, and behaviors are biased by stereotypic beliefs based upon sex. Many excellent resources are available to help develop an awareness of sexism and an understanding of how it limits full development (see Bibliography). Raising your awareness of sex bias is an ongoing process. It begins with a commitment.

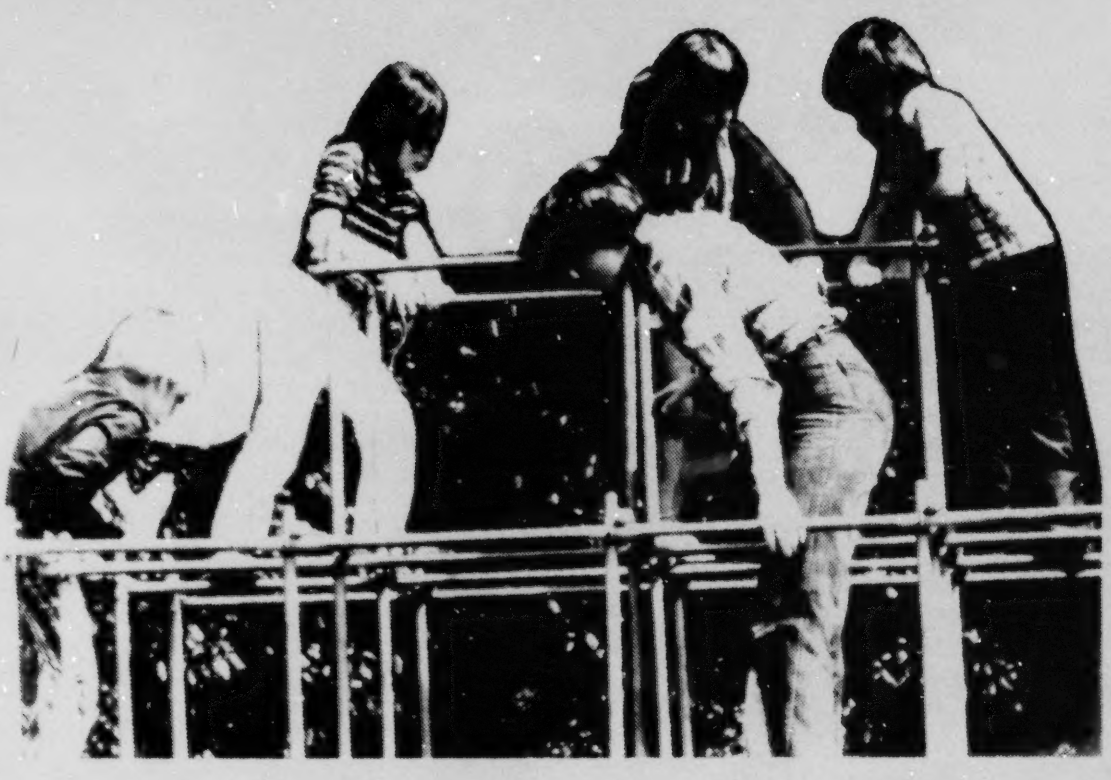
Model New Behaviors

One way children learn is by watching and imitating adults. Teachers are influential people in the lives of children, and their behavior dramatically impresses students. If we want children to explore roles, skills, and interests beyond the limitations of their sex role, teachers must model these same non-stereotypic behaviors.

An incident in the experimental classroom demonstrates how a teacher's behavior influences students. The teacher, a female, was concerned about girls in her class who always chose to remain inside the room to play house during their free time. Although there is value in this type of dramatic play, the teacher wanted the girls to become aware of other choices available to them. When she suggested the girls try something new, they seemed uninterested. One day during play time, the teacher put her sponge away and went outside to exercise. Within minutes the girls from the playhouse had joined the teacher and were following her lead. The teacher's behavior had directly affected the girls' behavior--not only when she played outside but as she cleaned inside the classroom as well.

There are many behaviors and skills that teachers can model if they are willing to make the effort. Male teachers might engage in housekeeping or nurturing roles--sweeping the floor, serving the juice, physically comforting a crying boy. Female teachers might use a ladder to change a light bulb or move classroom furniture with the children's (girls' as well as boys') help. For some female teachers this may mean replacing heels with a comfortable pair of sneakers.

Modeling a wider range of behaviors may necessitate learning new skills. Female teachers could learn to operate the film projector or to install a new pencil sharpener, and male teachers could learn to cook or use a sewing machine.



No matter how versatile a teacher may be, it is not possible for one person to model all the roles and skills that will be available to students when they grow up; therefore, it is necessary to involve many adults--parents and other workers from the community--in educational experiences. Guests may be invited to the class for the outward purpose of sharing a skill while, at the same time, providing a non-traditional role model. A female carpenter, for example, becomes the ideal person to teach children about woodworking and the proper use of tools. Each guest should be encouraged to wear his or her uniform or work clothes and to bring any portable "tools of the trade." The more concrete the image they present, the stronger the impact will be upon the children. For this reason, it is particularly effective to take children on field trips where people are actually engaged in their work. When arranging trips, be sure that both men and women will be available to talk to the children about their work.

Speak a Non-Sexist Language

It is often difficult for adults to perceive the sexist structure of the English language or to fully grasp the message it conveys. Years of experience have trained us to interpret the generic "man" and "he" to include women. Research indicates, however, that children react literally to language (Harrison & Passero, 1975; Harrison, 1975). When sexist terms are used, children's views of themselves and their world become distorted. Policeman, salesman, mailman, and spaceman might be interpreted by children as exclusive male occupations. Similarly, nouns followed by generic pronouns (he, his) possibly convey only male images. Females are not included in many children's understanding of the statement: "A scientist uses his brain to solve problems."

In order to present a more accurate picture of the world to children, it is important for teachers to use non-sexist terminology. Listed below are examples of sexist language and several possible alternatives that include both women and men in their literal meaning.

Sexist Language	Non-Sexist Alternatives
he (generic use)	he and she, they
his " "	his and her, their
man " "	person, one
men " "	people, humans
mankind	human race, humankind
man power	human energy
man-made	synthetic, manufactured
workman	worker
policeman	police officer
chairman	chairperson
fireman	firefighter
mailman	mailcarrier
caveman, prehistoric man	early men and women, prehistoric people
a farmer and his wife	a farm couple
the typical American ... he	typical Americans ... they
the common man	ordinary people
man and wife	husband and wife
Pioneers moved west taking their wives and children with them.	Pioneer men and women moved west taking their children with them.
congressmen	members of Congress
girls, ladies (speaking of adults)	women
8-man team	8-player team

Additional suggestions are:

- Do not assign personal pronouns to inanimate objects: "The sun is our friend. He gives us heat and light."

- Always include both parents when talking about family roles and behaviors: "How many of your parents work with tools?" "It is important to eat the vegetables your parents prepare for you."

- Do not address the class by sex. Instead of saying "boys and girls," use an inclusive term: "Children, may I have your attention?"

- Do not address a group by sex. Instead of saying "Boys! Stop running!" say "Please, stop running!"

Treat Students as Individuals

Teachers' attitudes and expectations directly influence the ways in which students grow. Ideally, teachers treat students as individuals and present them with opportunities to develop according to their particular personalities, interests, and strengths. Unfortunately, many of us are unaware of the degree to which our perceptions and expectations are biased by sex-role stereotypes. Unconsciously, stereotypic treatment of boys and girls channels their growth along "sex-appropriate" tracks and prevents their full development.

Research studies have identified numerous ways in which teachers treat boys and girls differently. The findings of these studies were used to prepare the following questionnaire. The questions are intended to alert teachers to common sex-typed behavior patterns that may help identify unintentional biased treatment of girls and boys.

1. Do you generally find girls to be better students than boys?

2. Do you give girls as much evaluative feedback on their academic performance as you do boys? That is, praise, recognition.

3. Do you praise high achieving boys more than high achieving girls?

4. Do you find ways of giving approval to children who are not achieving?

5. Do you find boys to be better than girls in math and science?

6. Do you find girls to be better than boys in reading and writing?

7. Are the boys in your class more creative than the girls?

8. Are you more interested in boys' academic progress than girls'?

9. Do you wait a shorter time for a girl to answer a question than you do a boy?

10. Do you call on boys more frequently than girls?

11. Do you use girls' ideas in classroom discussion as much as boys'?

12. Do you initiate conversation with girls as much as with boys?

13. Do you encourage girls to be independent and self-evaluative?

14. Do you perceive passive, dependent behavior as a problem?

15. Are you less tolerant of girls' misbehavior than boys'?

16. Do you excuse boys' misbehavior more easily than girls? That is, "Boys will be boys."

17. Do you reward good behavior more in boys than in girls?

18. Do you often do tasks for girls who are experiencing difficulty?

19. Are you inclined to protect girls more than boys?

20. Do you encourage girls to assert themselves in social conflicts?

21. Do you find that girls often remain physically close to you?

22. Do you find girls unwilling to try new things?

23. Do you feel sorry for girls who are not pretty?

24. When you compliment girls, how often is it related to their appearance?

25. Do you encourage girls to participate in physical activities?

26. Do you give girls opportunities to assume leadership roles?

27. Do you find that boys pose a threat to the order of your class?

28. Do you reprimand or punish boys more harshly than girls?

29. Do you teach boys to solve problems in non-aggressive ways?

30. Do you find ways of giving approval to boys who are loud and aggressive?

31. Do you feel sorry for boys who are emotional or weak?

32. When you compliment boys, how often is it related to their strength?

33. Do you encourage boys to nurture others?

34. Do you expect boys to be more competitive than girls?

35. Do you react differently when a boy cries than when a girl cries?

36. Do the students in your class segregate according to sex?

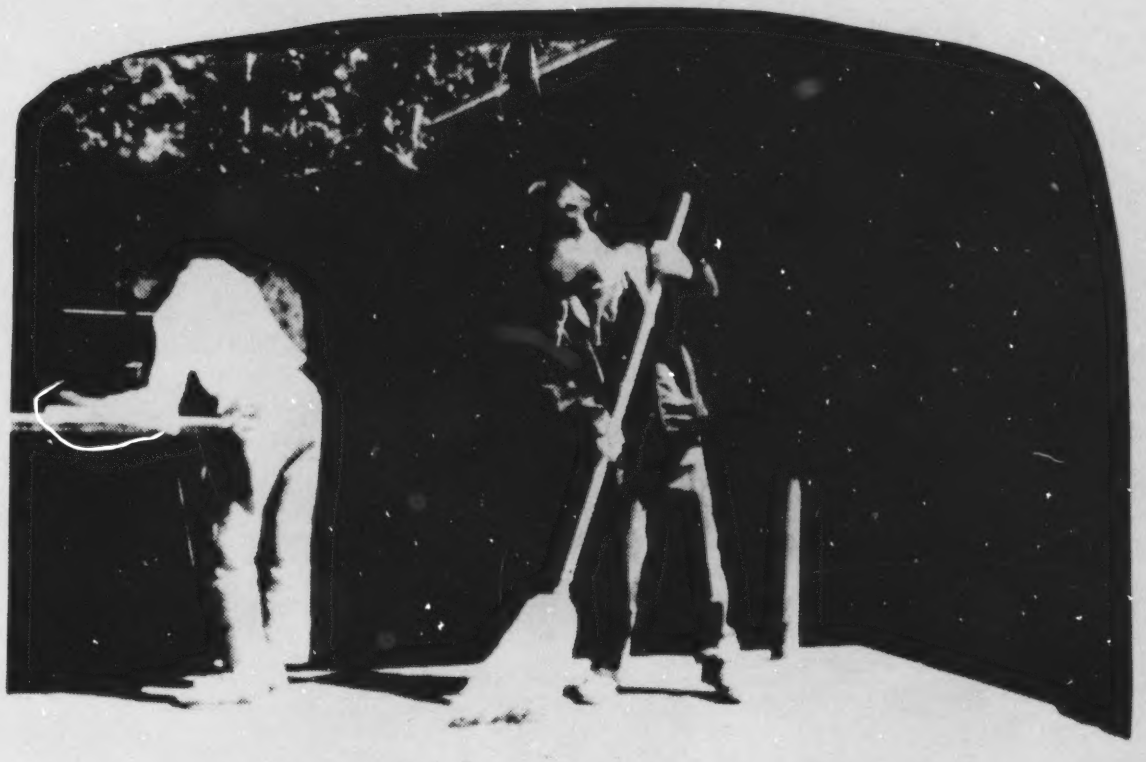
37. Do same-sex groups tend to be hostile toward one another?

38. Do you expect that girls and boys will assume different roles as adults?

39. Do you encourage girls as much as boys to think about careers?

40. Do you teach boys childcare and home management skills (sewing, cooking, cleaning, etc.)?

41. Dc you teach girls carpentry and mechanical skills?



Group Girls and Boys Together

Children often play with peers and participate in activities they have been taught to consider "appropriate" to their own sex. Girls play together with their girl toys and boys do the same. Brooks-Gunn and Matthews (1979) suggest that, by associating with same sex playmates, children establish their identity and practice sex-role behavior. When children limit themselves to same-sex friends, one negative consequence is that their perception of the opposite group may become distorted.

Research on prejudice and stereotyping indicates that the less familiar one is with another group, the more easily that group is described in stereotypical terms. Guttentag and Bray (1976) suggest that "increased interaction between the boys and girls is one effective means of erasing the limitations that each sex imposes upon the other. Equal-status contact in the classroom between children of both sexes is a necessity for a diminution of stereotyping to occur" (p. 300).

When teachers group children, they must make every effort to place boys and girls together in order that they have opportunities to form friendships. The following suggestions are intended to help teachers organize their classrooms in ways that promote healthy relationships between girls and boys.

1. Seating arrangements, lining up, small group instruction, and games involving teams should be sexually integrated.

2. When talking with groups of children who are the same sex, avoid calling the group by its sex: "Girls, stop talking!"

3. Never compare girls' and boys' behavior: "Girls have neater handwriting than boys."

4. Never set boys and girls in competition with each other: "The girls were being the quietest, so they may go first."

5. When organizing the class, gathering information, or giving directions, do not address the class by sex: "All the boys who will be buying lunch, raise your hands."

6. When offering choices to children, plan activities that do not elicit sex-typed preferences: Instead of giving children the choice between sewing or carpentry, give them the choice between sewing a pillow or a bean bag.

7. When introducing new classroom materials, games, or activities, include girls and boys in the descriptions and demonstrations: "Here is a new football for the class. John and Mary, will you show the class how to throw and catch a football?"

8. Do not "punish" a child by having her or him sit with a group of children of the opposite sex.

Treat the Classroom Environment and Curriculum

Physical Environment

Teachers must examine the physical space in their classrooms and identify those areas with limited cross-sex participation. When children avoid a play area, they are missing opportunities to develop interests and skills associated with that area. Blocks, for instance, stress the management of space and spatial relationships and foster exploration, problem solving, and creativity. Housekeeping play and dress-up activities provide children with imitative role-modeling opportunities that stimulate verbal development. Both sets of skills are important to a child's academic, social, and physical growth. Yet it is not uncommon to see girls in charge of the "house" and boys dominating the block area in a classroom. The same may be true for art and carpentry areas.

Teachers can make modifications in "activity areas" to attract children of both sexes. The block and housekeeping areas might be combined to make a new play center. In addition to the traditional dolls and trucks, the new play area might include toys and props

suggesting many kinds of dramatic play. Suitcases, construction helmets, doctor equipment, and cash registers might encourage children to build hospitals, stores, and offices they can play in. By combining traditional "boy toys" and "girl toys," children are encouraged to explore a wider range of play experiences and are given natural opportunities to develop friendships with children of both sexes.

Academic Curriculum

To establish a non-sexist academic program, the teacher must critically examine the existing program, eliminate any sexist overtones, and expand the program to include a new non-sexist dimension. Each academic program will need to be revised according to its own limitations. The curriculum materials that are available, for instance, and the way in which teachers organize for instruction vary a great deal from classroom to classroom. Because of these individual differences, it would be difficult to predict all the modifications that may be necessary to create a new non-sexist curriculum.

It might be helpful, however, to point out where sexism frequently occurs in traditional academic programs and to suggest ways of revising these programs to include a broader perception of the roles and skills available to children.

1. Reading. An undisputed difference between the performance of elementary boys and girls in the United States involves reading skills. It has been estimated that boys are almost four times more likely to have reading problems than girls (Bentzen, 1966). Although a number of theories maintain that boys' reading disabilities result from certain biological sex differences, some evidence indicates that cultural factors also play a role in the reading problems of boys. When reading scores were examined in England and Germany, researchers found boys excelling in reading and sometimes even doing better than girls (Johnson, 1973-1974; Preston, 1962). In both these countries, elementary school teachers are mostly male, and reading is thought a normal, everyday activity for boys.

It has been suggested that some boys in the United States are not fully participating in classroom learning experiences because they lack the skills necessary to be successful students. The elementary classroom typically emphasizes docility, neatness, and conformity--qualities that are foreign to the social training of most boys. As a result, some boys adjust poorly to school demands and do not receive the full benefits of classroom instruction.

Teachers' attitudes about sex differences in reading skill have also been shown to influence boys' reading achievement. Polardy (1969) found that boys read better when they are taught by teachers who believe there is no inherent sex difference in reading skill than by teachers who believe girls are naturally better readers. It is important, then, that teachers recognize and eliminate their own prejudice regarding sex differences in reading when it exists.

Often the method used to teach reading is directed toward quiet, docile students with well developed verbal skills; students who do not fall into this category may have difficulty. A good reading program should accommodate a wider range of personality traits, learning styles, and interests. An individualized approach to reading instruction is one method that meets these requirements. In this approach, each child reads aloud from a book selected to match the student's abilities or interests. For example, those children who have difficulty sounding out words phonetically can be placed in readers that rely upon sight words to develop vocabulary. Students who have a more versatile learning style can choose readers from a variety of books available on their level. Reading individually, children set their own pace, and their feeling of success is insured.

Unfortunately, sex-role stereotyping in children's readers is still a major problem. Dick and Jane as Victims (1972), a research study analyzing basal readers from fourteen major publishers, provides a comprehensive look at the sexist messages conveyed in the content of their stories. Since this 1972 study, many publishers have added stories in which females are clever, competent, and initiating and in which males express their emotions freely; but, there remains a large overall imbalance between male- and female-related material. For example, the ratio of boy-centered to girl-centered stories is 7:2, and male occupations are presented three times more often than female occupations. Change takes place slowly. Teachers can select the least sexist materials that are available today, but they must also be prepared to confront the sexism that has not yet been eliminated.

When sex bias appears in children's books, teachers may use this as an opportunity to challenge stereotypic beliefs and open up new options for both sexes. If adults in a story are portrayed only in stereotypical roles, the teacher might ask the children to compare the storybook characters with adults in their real lives. As children identify the many roles and skills they see adults perform, they will realize the storybook adults are portraying only one of many options available.

Sex-typed personality traits are also often reinforced in basal readers. Boys are sometimes portrayed holding back their tears, and girls are shown standing on the side lines of a ball game. In these cases, the teacher might encourage students to think of other ways the boy or girl might have acted and how this may affect the outcome of the story.

Another distressing theme is a "natural" hostility that is often implied between boys and girls. Whenever characters belittle or tease members of the opposite sex, the teacher should help children realize the unfairness and undesirability of such behavior. This might be a good time to introduce the idea that boys and girls can be friends. The teacher might point out that, if the boys and girls in the story had known it was possible for them to become friends, they might have treated each other differently.

Many other sex-typed attitudes are conveyed in readers, limiting children's perceptions of the roles and skills they can develop. Before teachers can confront these sexist themes, they must first be able to perceive them. Dick and Jane as Victims (1972) contains a comprehensive checklist pointing out sexism that often appears in instructional materials. Several excellent bibliographies of non-sexist children's books are also available. Every effort should be made to replace biased materials with books that have eliminated sex stereotypes and other forms of discrimination.

2. Math. Studies show that, although girls' academic performance in math tends to equal that of boys in the early grades, boys tend to outscore girls in math by the end of elementary school and maintain a higher level of achievement through high school and college. There are several possible causes for the differences between boys' and girls' mathematical performance. Traditionally, math is characterized as a masculine activity, and boys who identify with their sex role typically have positive attitudes toward problem solving (Milton, 1957). In addition to sex-typed interests, math achievement also appears to be related to the roles boys and girls are expected to fill. "According to this view, boys in high school forge ahead in math because they and their parents know they may become engineers or scientists; while the girls know they are unlikely to need math in the occupations they will take up when they leave school" (Maccoby, 1966, p. 40). As a result, some girls show little interest in math achievement. Their proficiency may even be hampered by a lack of confidence and a sense of anxiety associated with doing math. "Math phobia" seriously handicaps an individual's chance of succeeding in a chosen career.

Girls and boys will perceive the importance of math if teachers show its applicability in their everyday lives. When learning money

concepts, students could count the money they brought to school and predict how much change they will receive after buying lunch in the cafeteria. Students who are given opportunities to apply their math skill in practical experiences will not only recognize the usefulness of math but will also become more proficient at manipulating numbers.

When selecting a math textbook, pay special attention to the illustrations and story problem content. Story problems teaching measurement often show boys building and girls cooking and sewing. In stories about money, girls babysit and boys deliver newspapers and mow lawns. When sexist stories appear, skip those pages and write new word problems. Use your students' names in the stories and show them in a variety of activities and social contexts. The problems could be about girls' and boys' earning money by baking cookies and selling them together, mothers' measuring wire to build a fence, and fathers' calculating prices while shopping for groceries.

3. Science. Science, like math, is traditionally presented as a male activity. Textbook illustrations typically show boys doing the experiments while girls watch or assist. Adult males are pictured driving combines, adjusting equipment, working on satellites, and generating electricity while women sew, serve food, and iron. Science textbooks often use the generic "he" when referring to both women and men. In addition to this, few if any women's accomplishments are mentioned in science texts. The message to girls is clearly communicated: Science is not for them.

When science books say, "The scientist writes things down. He keeps records," the teacher should explain that the sentence is not talking about men only. It might be helpful to change the sentence to the plural: "Scientists keep records." Point out that, although there may not be female scientists shown in the book, women are scientists, too. Students may be more convinced of this if the teacher presents a unit of study about famous women and men in science. Female, as well as male, scientists might also be invited to talk to the class about their area of expertise.

Messages from the culture also discourage girls from participating in science fully. Girls who are socialized to "act like a lady"--i.e., keep neat and clean--are not likely to be interested in "messing around" with science. Schools tend to reinforce conformity to the feminine sex role because it is so similar to the role of "ideal student." Both the "ideal student" and the "good little girl" are quiet, obedient, conforming. Girls and boys who develop a passive approach to learning will often have difficulty achieving in an area that requires intellectual curiosity and a willingness to cope with challenging problems.

Teachers may help these children overcome their reluctance to participate in science by showing them that science is for everyone. Female teachers (or other adults) who enthusiastically handle animals, get dirty in the garden, and hunt for artifacts outside will surely motivate students, boys as well as girls, to learn. Teachers must also provide students with plenty of firsthand experiences in which everyone is expected to participate. When studying reptiles, a "snake expert" might bring a live snake to the room for all the children to see and handle.

4. Social studies. A number of social studies units typically reinforce traditional stereotypes and distort children's perceptions of the future roles they may assume as adults. In career education studies, men are frequently portrayed in more careers than women, and men and women are rarely shown working together in equally competent roles. Dick and Jane as Victims (1972) examined elementary school readers and found that men occupied 147 different jobs while women were shown in twenty-six. The only jobs that both men and women could do were writing, babysitting, cooking, painting, teaching, and healing.

REPTILES
AND

Labor statistics indicate that a typical twenty-five-year-old woman will have two children and still work a total of thirty-four years. Single, divorced, or separated women will work an average of forty-one years, the same work expectancy as men (Sadkers, unpublished pamphlet). These statistics indicate girls must be prepared to participate fully in the world of work instead of being trained for a limited number of jobs.

To help children learn that they are not limited by sex in choosing a career, it is important for them to meet and talk with adults in a variety of traditional and non-traditional careers. Field trips into the community are an effective way of exposing children to a wide variety of work options. When arranging trips, select sites where both men and women can be observed. If it is not possible to take trips into the community, invite adults into the classroom to talk about their jobs and answer children's questions.

Instructional materials that use sexist terminology perpetuate the idea that some jobs are performed exclusively by men. When sexist terms such as policeman, fireman, and mailman are used, the teacher can point out it was once true that only men held these jobs, but today both women and men can pursue these careers. Suggest that "old fashioned" words be replaced with non-sexist terms; i.e., police officer, firefighter, mailcarrier (see Speak a Non-Sexist Language, p. 22).

Confronting sexist attitudes presented in text or illustrations is a good way to teach children that some ideas presented in books are no longer valid. In the non-sexist classroom, the teacher read I Want to be a Carpenter (Greene, 1959) as part of a career unit. A few pages into the story, the teacher remarked, "I'll bet this book was written a long time ago. Let's look at the copyright date and find out." When the date verified the teacher's guess, she asked, "Does anyone know how I could tell this book had probably been written a long time ago?" The children first observed that the style of clothing and the model of the car in the illustrations were old-fashioned. The teacher then pointed out that some of the ideas in the story were also old-fashioned. It was then the children noticed that all the carpenters in the story were men. The teacher explained that only men used to be carpenters, but today carpentry is a career pursued by women as well.

Following the discussion, a local female carpenter visited the class, talked about her work, and helped the children build wooden toys. Providing children (especially girls) with an opportunity to handle tools and build with wood was perhaps the most dramatic way to teach the value of acquiring carpentry skills.

Parenting also should be explored as an important future role option for both boys and girls. In this area, boys are often short-changed. Traditionally, fathers are presented as "breadwinners" of the family and are sometimes excluded from the care and nurturing of the children. Men who do not participate in child care are denied an opportunity to establish intimate and fulfilling relationships with their children. To encourage boys as well as girls to learn the skills of parenting, fathers and mothers might be brought into the classroom to demonstrate and teach child care skills. Students who learn to bathe, change, dress, feed, and love younger children are not just learning skills for the future; these skills are useful to students in helping care for younger siblings at home.

Treat the Students

The teacher in the Experimental classroom was surprised to discover that, after she had modified her own behavior and the curriculum, the expected behavioral changes in the students did not automatically result. Even when given a choice, children continued to act out sex-typed behavior they had been trained to perform long before entering the classroom. Consequently, the teacher began to treat sexism in the students as assertively as she had treated the sexism in other parts of the classroom.

The first step taken was to observe the children and identify ways in which boys and girls limited their behavior to conform to a sex role. The teacher in the Experimental group observed these sexist attitudes and behaviors in her students:

1. Boys and girls were reluctant to talk to each other or play together.

2. Same-sex groups were sometimes hostile toward one another.

3. Girls generally stayed inside the classroom (close to the teacher) and played quietly.

4. Boys generally played outside, often at organized sports.

5. Some girls were overly concerned about their appearance.

6. Some boys were preoccupied with being "tough."

7. In their dramatic play, girls and boys often assumed traditional roles: Girls cared for the dolls and the "home" and boys went off to work and "earned money."

8. Only girls were interested in cooking and sewing.

9. Only boys played with trucks and blocks.

Once specific sexist behaviors among the students are identified, the teacher can begin treatment. The following steps outline the procedure used by the teacher in the experimental classroom to help free children from the limitations of their previous sex-role training and to broaden their perception of the skills, roles, and interests available to them.

1. Focus on one sexist attitude/behavior. Focus upon one problem at a time to help concentrate your effort and avoid being overwhelmed by the number of problems needing attention.

2. Define the problem. Gather information by reviewing the literature and by discussing the problem with the students. Let students define the problem using their own words. Discover the students' thinking behind their attitudes and behaviors.

3. Introduce a non-sexist attitude and establish it as a value. Challenge students' thinking by introducing the corresponding non-sexist attitude. Discuss the new attitude with students. Point out the advantages of thinking in this way. Establish the attitude as a new classroom value. Assure students that they will be supported rather than ridiculed if they adopt the new attitude.

4. Give students an experience in the non-sexist behavior. Identify behaviors that result from the non-sexist attitude. Design an activity in which students have an opportunity to experience the non-sexist behavior firsthand.

5. Reinforce the change. Acknowledge and support those students who try out the new behavior. Encourage them to talk about their experience in classroom discussion. Provide students with opportunities to re-experience the non-sexist behavior. Whenever possible, model the behavior yourself.

6. Confront inconsistencies. Expose any sexist ideas that appear in the classroom (books, instructional materials, attitudes) and revise them in support of the new classroom values. Develop a vocabulary for discussing sexism with students.

To illustrate how these steps work to treat sexist problems, two examples from the experimental classroom are cited. Each example describes how a specific problem was treated using the above procedure. The six steps are identified in the margin in order to maintain the narrative flow. Notice that at times the steps overlap or their sequence varies.

In deciding which problem to focus upon first, the teacher in the experimental classroom reviewed the behavior problems listed earlier. Some of the problems identified had a low priority because it was likely those problems would be treated by special units already planned as part of the new curriculum. The career unit, for instance, introducing men and women in non-traditional jobs, would probably modify the children's stereotypic beliefs regarding future work options.

Choose one problem to focus upon.

For some problems, however, the teacher had not yet made a treatment plan. One of the most disturbing problems was the fact that boys and girls automatically segregated at play time and often expressed negative attitudes towards the opposite sex group.

The environment had already been modified to support cross-sex affiliation. Children of both sexes were integrated whenever possible so that they had opportunities to interact with each other in normal daily living and learning situations. Seating arrangements, lining up, small group instruction, and games involving teams were all sexually integrated. These subtle modifications in organizational patterns, however, were not enough to change the often antagonistic behavior between boys and girls. Although they were compelled to interact more often, they continued to interact in the same hostile ways.

Story time had always been a natural focal point for exploring the complexities of the human experience and for establishing classroom values and codes of acceptable behavior. Story time therefore became a good vehicle for promoting the idea that boys and girls can play together. Over a period of a week, stories of boys' and girls' approaching each other, playing together, and making friends were read and discussed (Hoban, 1969; Iwasaki, 1970; Udry 1965). The children's reactions were predictable. Some were disgusted: "Yuk!" "Girls!" "Boys!" Some were proud to announce that they already had friends of the opposite sex; others remained quiet and uncommitted. In the heated discussions that followed, many sexist taboos were revealed: girls and boys who played together were viewed as "tomboys," "sissies," or "in love."

Introduce the non-sexist attitude.

Define the problem.

Establish a new (non-sexist) value.

As the teacher and children explored these loaded words together, the unfairness of such labeling was emphasized. Children began to admit it was possible for boys and girls to play together just because they liked each other. The stories and the talks helped to establish a new classroom value: Boys and girls can be friends.

Give students an experience in the non-sexist behavior.

In spite of this supportive environment, the majority of the class did not magically cross the "girl-boy" line and begin socializing. The teacher had to assume a more assertive role in introducing children to new ways of interacting. A New Friends Game was designed specifically for this purpose. At play time, individuals were taken aside and asked to name children in the class they would like to have as new friends. Boys and girls named each other more freely in this private interview than they might have publicly. Using this list of names, two or three children were matched together and assigned a task, such as playing checkers or erecting a hospital with the big building blocks. The object of the game was to complete the task and make a new friend. Making it a compulsory, timed activity diverted the children's attention from the fact that they were interacting with new playmates. The first time they played this game, the children were assembled afterward and talked about their experiences.

Reinforce the change.

One of the ideas reinforced in the discussion was that many boys and girls had played together and become friends.

The class continued to play the New Friends Game once a week. Before each game, the children were given an opportunity to revise their list of potential friends. Not only did boys and girls begin naming each other more frequently, but they began socializing outside the context of the game--sitting together at group meetings, lunch time, and work time. Any new friendships that became visible were encouraged and supported: "Jessica, are you and Jason new friends? That's great!" At the end of several weeks, all the children demonstrated an awareness of the possibility of having friends of the opposite sex, and many had experienced it and valued it for themselves.

Choose one problem to focus upon.

Define the problem.

After the first problem had been treated, another sexist behavior was identified to focus upon. Many girls spent their free time inside the classroom playing house, caring for their dolls, and arranging their hair before the mirror. Although this type of imitative play is valued, the girls were missing important opportunities for physical exercise and for participation in team activities where important group procedures were being learned. Jenkins and MacDonald (1979, p. 20) report that girls are inhibited in active play because of cultural signals that reinforce concern with their appearance, neatness, and cleanliness. It seemed necessary to teach the girls that physical fitness and athletic ability are desirable characteristics for girls as well as boys.

Introduce the non-sexist attitude.

Give students an experience in the non-sexist behavior.

Creating an awareness and appreciation for body fitness and strength began with a guest athlete who came to the classroom dressed in jogging clothes. She talked to the children about how muscles function and how they are developed. She showed them her muscles and they showed her theirs. She specifically stressed the idea that it is important for everyone to keep physically fit. She led the class in several exercises and talked about the many ways they could work to develop strong bodies.

Reinforce the change.

Physical fitness thus established as a new classroom value, the teacher announced that she would spend part of play time actively participating outside. Here the teacher's role-modeling behavior was used as an effective strategy. The girls in the playhouse left their dolls and followed her out to the playground. They climbed on the jungle gym, crawled through the pipes, and played follow-the-leader. Much of the fun, however, seemed to be happening on the soccer field where the boys spent most of their free time. In a natural progression of events, the strategy aimed at making physical activity attractive to the girls led to an ideal opportunity to involve both sexes in a team activity. At the teacher's suggestion, the girls asked the boys if they could join the game. The boys had no objection: "Sure, you can play! Let's choose sides again."

57

Define the problem.

Give students an experience in the non-sexist behavior.

When the girls joined the game, a new problem emerged. The girls clustered together on the field, hands behind their backs, and watched the action around them. Playing soccer was a skill they had not yet acquired. It was necessary for the female teacher to act as a model. As she ran, kicked, and followed the action, so did the girls. After several weeks of coaching, some of the girls became sufficiently skilled both to enjoy the game and to be valuable team members.

Following the events that helped children develop an appreciation for physical fitness, some girls still sometimes stayed inside and played house. After participating in the outdoor activities, however, the girls' decision to play house was a conscious one chosen from a variety of options they had experienced firsthand.

The soccer experience illustrates the cumulative effect of this treatment procedure. Once a new value became internalized, the children were increasingly more receptive to other new ideas, and the process of change was facilitated. The girls' easy entry

into a previously all-boy activity was a direct result of the new value established in the New Friends Game.

Confront inconsistencies.

As the non-sexist program opened up new options for boys and girls, it became necessary to confront the sexist ideas that constantly appeared in the everyday environment. When discussing sexism with the children, it was important to use terms that a six-year-old could easily understand. One of the most useful phrases for labeling sexist ideas was "old-fashioned." "People used to think that men could not be nurses. Now we know that's an old-fashioned idea."

Children's books often provided an excellent opportunity to apply their sharpened awareness because many of these books employ sexist concepts in both text and illustrations. The children enjoyed being detectives and ferreting out old-fashioned ideas: "Look, this book is old-fashioned. It says that nurses wear dresses." This was obviously a half-truth, since a male nurse and a female nurse had visited the classroom, and neither of them had been wearing a dress.

Inconsistencies, errors, and "old-fashioned" attitudes--whether discovered by themselves or pointed out by the teacher--stimulated many consciousness-raising discussions. The children decided how the words or pictures could be changed to reflect a more realistic view of the world. Some books underwent only minor revisions; "fireman" and "policeman" were changed to "firefighter" and "police officer." In stories where girls were completely left out of the action, the children suggested that a girl's name be substituted for one of the main boy characters. At times it was necessary to revise entire sections or plots in a book. If girls and boys exhibited hostility toward each other, the children noted that the boys and girls in that story had not yet learned they could be friends. A few stories were so blatantly sexist that the children wrote letters to the author recommending changes.

In a similar manner, non-sexist children's books were brought into the classroom to reinforce new ways of thinking. Books that offered children the widest range of choices were recognized and appreciated as valuable representations of the world as they now perceived it.

By the end of the project, the non-sexist program could not be separated from the basic first grade program. The process of perceiving sexism and actively dealing with it was as natural for the teacher as diagnosing and remediating math errors. Each time a new sexist idea was confronted, the non-sexist values were strengthened.

Summary

In designing a non-sexist educational program, teachers must make many modifications in their own behavior and in the classroom environment and curriculum. Merely setting up a non-sexist classroom and passively waiting for it to have an effect, however, will not create behavioral changes in students. The teacher must identify and actively treat the sexist attitudes and behaviors within students themselves. This can best be accomplished by providing students with personal experiences in non-sexist behaviors. As students repeatedly engage in a wide variety of activities that emphasize role flexibility, their attitudes about sex roles will ultimately change.

The teacher plays the most important role in a non-sexist program. The critical factor is a strong commitment--a commitment to develop an awareness of sexism, to actively confront the sexist attitudes and behaviors that awareness reveals, and to create opportunities for children to grow toward the full achievement of their potentials.

APPENDIXES

APPENDIX A

TABLE A-1

Validation of the Sex-Role Attitude Inventory:
Frequency of Ratings and Mean Ratings for Each Item (N = 9)

	Not at all Stereotypic		Somewhat Stereotypic		Highly Stereotypic	
	1	2	3	4	5	$\bar{X}$
Female Statements						
Part 1: Attitudes toward Children						
1. Girls help take care of little brothers and sisters.	0	1	3	1	4	3.88
3. Girls help set the table.	0	0	2	0	7	4.55
7. Girls like to play with girls.	1	0	3	0	5	4.22
*8. Girls like to kiss Mom and Dad goodbye when they go to school.	1	2	5	1	0	2.55
9. Girls like to jump rope.	0	0	2	5	2	4.00
11. Girls like to sew.	0	2	0	1	6	4.22
12. Girls can be nurses.	0	0	0	0	9	5.00
Part 2: Attitudes toward Adults						
4. Women change baby's diapers.	0	0	2	0	7	4.55
5. Women clean the house.	0	0	0	0	9	5.00
9. Women hug you when you are hurt or scared.	1	0	4	2	2	3.44
*10. Women sometimes make mistakes.	1	4	4	0	0	2.33
12. Women can be teachers.	0	0	0	5	4	4.40
Male Statements						
Part 1: Attitudes toward Children						
2. Boys like to climb trees.	0	0	3	2	4	4.11
5. Boys could carry their own suitcase on a trip.	0	1	4	1	3	3.66
6. Boys like to throw and catch a ball.	0	0	0	5	4	4.44
7. Boys like to play with boys.	1	0	1	1	6	4.22
10. Boys help take care of the yard.	0	1	1	4	3	4.00
14. Boys are strong.	0	0	0	2	7	4.77
15. Boys might be airplane pilots when they grow up.	0	0	0	3	6	4.66
Part 2: Attitudes toward Adults						
1. Men deliver the mail.	1	0	2	3	3	3.77
3. Men have muscles.	0	0	0	0	9	5.00
6. Men can be dentists.	0	1	1	1	6	4.33
7. Men build and fix things.	0	0	1	3	5	4.44
8. Men are smart.	0	1	1	4	3	4.00

*Statements not meeting validation criterion.

TABLE A-2

Validation of Two New Items for the Sex-Role Attitude Inventory: Frequency of Ratings and Mean Ratings for Each Item (N = 8)

	Not at all Stereotypic		Somewhat Stereotypic		Highly Stereotypic	
	1	2	3	4	5	$\bar{X}$
Female Statements						
Part 1: Attitudes toward Children						
Girls like to play dress up.	0	0	0	2	6	4.78
Part 2: Attitudes toward Adults						
Women buy groceries.	0	1	0	1	6	4.50

APPENDIX B

SEX-ROLE ATTITUDE INVENTORY

An Instrument to Measure Sex-Role Attitudes in Elementary Age Children

by Barbara Porro

University of Florida

Tester's Directions

(Before giving the test, talk to the child about what he/she likes best at school--friends, etc.--so that you both feel comfortable with each other.)

PART I: Sample Questions

I am going to ask you some questions about what you think. This is not a test like you take in school. There are no right or wrong answers. Different children choose different answers. I want you to pick the answer that tells me what you think. Let's try a few together just for practice.

Sample A.

(Child first responds without looking at Answer Picture Booklet.)

Tell me, who do you think will grow up to be a man? A girl . . . a boy . . . or both a girl and a boy?

(Child responds.)

Good. Now you are going to point to the picture that shows me your answer. There are 3 pictures to choose from:

(Show Sample A pictures.)

This is a girl.
This is a boy
This is both a girl and a boy.
These children are like any children you know.

Now point to the picture and tell me your answer. Who do you think will grow up to be a man?

(Child responds.)

Good. You pointed to the boy, so that tells me you think only the boy can grow up to be a man. (Record answer.)

Let's try another.

Sample B.

(Show Sample B pictures.)

Who do you think sometimes wears a dress? Both the girl and the boy . . . the boy . . . or the girl? Point to the picture and tell me your answer.

(Child responds.)

Good. You pointed to the girl, so that tells me that you think the girl sometimes wears a dress. (Record answer.)

Let's try one more.

Sample C.

(Show Sample C pictures.)

Who do you think watches T.V.? The boy . . . both the girl and the boy . . . or the girl? Point to the picture and tell me your answer.

Good. You pointed to the girl and the boy, so that tells me you think both watch T.V. (Record answer.)

Do you have any questions about what you are supposed to do? Now you are ready to answer some questions all by yourself. O.K.? Let's begin.

PART I: Child Items

Remember to point to the picture and tell me your answer.

1. Who do you think helps take care of little brothers and sisters?

(If necessary, continue pointing and saying . . . "the girl . . . the boy . . . or both.") (Record.)

2. Who do you think likes to climb trees? (Record.)

3. Who do you think helps set the table for dinner? (Record.)

4. Who do you think drinks water? (Record.)

5. Who do you think could carry their own suitcase on a trip? (Record.)

6. Who do you think likes to throw and catch a ball? (Record.)

7. Who do you like to play with? (Record.)

8. Who do you think likes to play dress up? (Record.)

9. Who do you think likes to jump rope? (Record.)

10. Who do you think helps take care of the yard? (Record.)

11. Who do you think likes to sew? (Record.)

12. When children play hospital, who do you think can be the nurse? (Record.)

13. Who do you think can be a sister? (Record.)

14. Who do you think is strong? (Record.)

15. Who do you think might be an airplane pilot when they grow up? (Record.)

16. Who do you think can be a brother? (Record.)

PART II: Sample Questions

Good. Now we are going to play the game again, only this time you will choose your answer from these 3 pictures:

(Show Sample D.)

This is a grown up woman.
This is a grown up man.
This is both a grown up woman and a grown up man.
These men and women are like any grown ups you know.

Let's try a couple questions for practice.

Sample D.

(Show Sample D pictures.)

Who do you think drives a car? A woman . . . a man . . . or both a woman and a man?

Good. You pointed to the woman and the man, so that tells me that you think a woman and a man can both drive a car. (Record.)

Now let's try one more.

Sample E.

(Show Sample E pictures.)

Who do you think can be a grandmother? Both a woman and a man . . . a man . . . or a woman?

Good. You pointed to the woman, so that tells me you think only a woman can be a grandmother. (Record.)

Now let's try one more.

Sample F.

(Show Sample F pictures.)

Who do you think can grow a beard? A man . . . a woman . . . or both a woman and a man?

Good. You pointed to the man, so that tells me you think only a man can grow a beard. (Record.)

Do you have any questions about what you are supposed to do for this part of the test?

Now you are ready to try some questions by yourself.

PART II: Adult Items

Remember to point to the picture and tell me your answer.

1. Who do you think delivers the mail? (Record.)
2. Who do you think can go to the movies? (Record.)
3. Who do you think has muscles? (Record.)
4. Who do you think changes a baby's diapers? (Record.)
5. Who do you think cleans the house? (Record.)
6. Who do you think can be a dentist? (Record.)
7. Who do you think builds and fixes things? (Record.)
8. Who do you think is smart? (Record.)
9. Who do you think hugs you when you are hurt or scared? (Record.)
10. Who do you think buys groceries? (Record.)
11. Who do you think can be a mother? (Record.)
12. Who do you think can be a teacher? (Record.)
13. Who do you think can be a father? (Record.)

SEX-ROLE ATTITUDE INVENTORY
Answer Sheet

PART I

Sample A.	girl	boy	girl-boy
Sample B.	girl	boy	girl-boy
Sample C.	girl	boy	girl-boy
1.	girl	boy	girl-boy
2.	girl	boy	girl-boy
3.	girl	boy	girl-boy
4.	girl	boy	girl-boy
5.	girl	boy	girl-boy
6.	girl	boy	girl-boy
7.	girl	boy	girl-boy
8.	girl	boy	girl-boy
9.	girl	boy	girl-boy
10.	girl	boy	girl-boy
11.	girl	boy	girl-boy
12.	girl	boy	girl-boy
13.	girl	boy	girl-boy
14.	girl	boy	girl-boy
15.	girl	boy	girl-boy
16.	girl	boy	girl-boy

PART II

Sample D.	woman	man	woman-man
Sample E.	woman	man	woman-man
Sample F.	woman	man	woman-man
1.	woman	man	woman-man
2.	woman	man	woman-man
3.	woman	man	woman-man
4.	woman	man	woman-man
5.	woman	man	woman-man
6.	woman	man	woman-man
7.	woman	man	woman-man
8.	woman	man	woman-man
9.	woman	man	woman-man
10.	woman	man	woman-man
11.	woman	man	woman-man
12.	woman	man	woman-man
13.	woman	man	woman-man

NAME:_____

SEX:_____ RACE:_____

BIRTHDATE:_____ AGE:_____

GRADE:_____ TEACHER:_____

TESTER:_____ DATE:_____

PART I
SCORE:_____

(Number of "girl-boy" responses to items 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 14, and 15 in PART I)

PART II
SCORE:_____

(Number of "woman-man" responses to items 1, 3, 4, 5, 6, 7, 8, 9, 10, and 12 in PART II)

TOTAL SCORE:_____

(PART I + PART II SCORES)

APPENDIX C

SEXISM IN THE CLASSROOM: AWARENESS ACTIVITIES

Instructions: Identify the sexism in each example and develop a strategy for dealing with it.

A. Sexism in instructional materials:

1. The career posters in your classroom show these occupations: firemen (m), policeman (m), doctor (m), carpenter (m), nurse (f), and librarian (f).

2. A story in the basal reader you are using says, "Look at her mother, just look at her. She is just like a girl. She gives up!"

3. The instructional materials available to you for a unit study on the family show a mother with a baby, a father, a big brother, and a little sister.

4. The science textbook you are using defines a scientist in this way: "The scientist reads books. He reads many books about science. The scientist reads to find out what others know. He reads to learn about science."

5. In a filmstrip you are showing about reptiles, only boys are handling the animals.

6. Here are two examples of word problems in the math textbook you are using:

   a. Bobby and Allen are building a treehouse. Allen had a board 13 feet long. He sawed off a 6-foot piece. How long was the other piece?

   b. Nancy and Mary are making cookies. If they bake 12 cookies on one cookie sheet, how many cookies can they bake on 2 cookie sheets?

7. An exercise at the end of a history unit says: "Draw three examples of early man and the tools you think he used in daily life."

8. The American History textbook you are using makes this statement: "The pioneers moved West, taking their wives and children with them."

9. Women's suffrage is handled in this way by your textbook:

   > Women Gain The Right To Vote. Suffrage is the right to vote. In our country, this right was kept for men alone for a long time. Beginning in 1869, one new western state after another

gave women the right to vote. In 1920, we added the Nineteenth Amendment to our Constitution, giving women the right to vote.

10. You assign your students a book report and give them a list of books to choose from. On the list there are 14 male authors and 1 female author.

B. Sexism in organizational techniques:

1. "The girls were being the quietest so they may line up first."

2. A parent is going to do a sewing project with your class. She wants to offer the children a choice between making a marble bag or a stuffed doll.

3. "On the field trip today, the girls will be going with Sandra and the boys will be going with Don."

4. Your lowest phonics skill group is made up of 6 boys and 1 girl.

5. In deciding how to handle the Christmas gift exchange, the students suggest that each boy bring a "boy gift" and each girl bring a "girl gift".

6. "All the boys who made fun of the girls will have to stay inside at recess."

7. "All the girls who have finished their assignments may begin to clean up."

8. The P. E. teacher gives your class a choice of these two activities: throw and catch the ball or jump rope.

9. "Will you boys help me move these tables?"
"Will you girls help me make this bulletin board?"

10. "How many girls would like to help sew the costumes for the play?"
"How many boys would like to help build the props and scenery?"

C. Sexism in teacher behavior:

1. "Now stop crying, David. Big boys don't cry."
"Are you alright, Sharon? Come here and I'll help you feel better."

2. "Do you help mommy around the house?"
"What does your daddy do?"

3. "That's good, Michael. You did that all by yourself!" "Here, Beth, let me help you. You don't want to hurt your fingers."

4. "Today we are going to learn how to work with wood. How many of you have fathers that like to build things?"

5. "Since you won't stop playing, Sammy, I'll have to move you."
Sammy is moved to a table where only girls are sitting.

6. "Janet, what a pretty dress! Is it new?"

7. "Ladies first!" "Boys will be boys!"

8. "Boys, stop running in the room."
"Now girls, stop the talking!"

9. "All the boys who will be buying lunch, please raise your hand."

10. "There's this woman driver who caused a terrible accident the other day. She signaled that she was going to make a left-hand turn, and then she turned left!"

D. Sexism in student behavior:

1. A group of children in the lunchroom are chanting, "Susan and David sitting in the tree, K - I - S - S - I - N - G.

2. There are several girls in your class who usually wear dresses and are concerned about keeping them clean.

3. While reading a story about a visit to the doctor, you come to an illustration of a boy in his underwear. The children giggle and laugh nervously.

4. You overhear this dialogue in a dramatic play area:

   Carol: "I'm the doctor."
   Jason: "No! I'm the doctor. Girls are nurses."

5. John got a haircut, and now he has bangs. A few children in the class make fun of him by calling him a sissy.

6. On Valentine's Day Jeff rips up the special Valentine Elizabeth made for him and sends her a note that says, "I hate you!"

7. A few boys are chasing some girls around the playground with a rubber snake.

8. In choosing two students to return books to the library you call on Carl and then Helen. Carl says, "No way I'm going with a girl!"

9. You overhear a group of boys giving Sharon a hard time because she is interested in car mechanics.

10. The club you are sponsoring elects its officers. Boys are elected as President, Vice-President, and Treasurer, and a girl is elected as the Secretary.

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